Amendments to the claims

Please amend claim 12.

The listing of the claims will replace prior versions, and listings of claims in the application.

Listing of claims:

1-11. (Canceled)

12. (Currently amended) An isolated nucleic acid sequence, wherein the nucleic acid encodes a protein having serine protease inhibitory activity, comprising one of the following amino acid sequences:

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ADRERSIHDF CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN          50
YLTKEECLKK CATVTENATG DLATSRNAAD SSVPSAPRRQ DSEDHSSDMF          100
NYEEYCTANA VTGPCRASFP RWYFDVERNS CNNFIYGGCR GNKNSYRSEE          150
ACMLRCFRQQ ENPPLPLGSK                                           170
(SEQ ID NO:52);

                        MAQLCGL RRSRAFLALL GSLLLSGVLA           -1
ADRERSIHDF CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN          50
YLTKEECLKK CATVTENATG DLATSRNAAD SSVPSAPRRQ DSEDHSSDMF          100
NYEEYCTANA VTGPCRASFP RWYFDVERNS CNNFIYGGCR GNKNSYRSEE          150
ACMLRCFRQQ ENPPLPLGSK VVVLAGLFVM VLILFLGASM VYLIRVARRN          200
QERALRTVWS SGDDKEQLVK NTYVL                                     225
(SEQ ID NO:49);

ADRERSIHDF CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN          50
YLTKEECLKK CATVTENATG DLATSRNAAD SSVPSAPRRQ DSEDHSSDMF          100
NYEEYCTANA VTGPCRASFP RWYFDVERNS CNNFIYGGCR GNKNSYRSEE          150
ACMLRCFRQQ ENPPLPLGSK VVVLAGLFVM VLILFLGASM VYLIRVARRN          200
QERALRTVWS SGDDKEQLVK NTYVL                                     225
(SEQ ID NO:71);

                                AGSFLAWL GSLLLSGVLA              -1
ADRERSIHDF CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN          50
YLTKEECLKK CATVTENATG DLATSRNAAD SSVPSAPRRQ DSEDHSSDMF          100
NYEEYCTANA VTGPCRASFP RWYFDVERNS CNNFIYGGCR GNKNSYRSEE          150
ACMLRCFRQQ ENPPLPLGSK VVVLAGAVS                                 179
(SEQ ID NO:2)

                            MLR AEADGVSRLL GSLLLSGVLA            -1
ADRERSIHDF CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN          50
YLTKEECLKK CATVTENATG DLATSRNAAD SSVPSAPRRQ DSEDHSSDMF          100
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NYEEYCTANA VTGPCRASFP RWYFDVERNS CNNFIYGGCR GNKNSYRSEE 150
ACMLRCFRQQ ENPPLPLGSK VVVLAGLFVM VLILFLGASM VYLIRVARRN 200
QERALRTVWS SGDDKEQLVK NTYVL 225
(SEQ ID NO:45);

MAQLCGL RRSRAFLALL GSLLLSGVLA -1
ADRERSIHDF CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN 50
YLTKEECLKK CATVTENATG DLATSRNAAD SSVPSAPRRQ DSEDHSSDMF 100
NYEEYCTANA VTGPCRASFP RWYFDVERNS CNNFIYGGCR GNKNSYRSEE 150
ACMLRCFRQQ ENPPLPLGSK VVVLAGLFVM VLILFLGASM VYLIRVARRN 200
QERALRTVWS FGD 213
(SEQ ID NO:47);

ADRERSIHDF CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN 50
YLTKEECLKK CATVTENATG DLATSRNAAD SSVPSAPRRQ DSEDHSSDMF 100
NYEEYCTANA VTGPCRASFP RWYFDVERNS CNNFIYGGCR GNKNSYRSEE 150
ACMLRCFRQQ ENPPLPLGSK VVVLAGLFVM VLILFLGASM VYLIRVARRN 200
QERALRTVWS FGD 213
(SEQ ID NO:70);

IHDF CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN 50
YLTKEECLKK CATV 64
(SEQ ID NO:4);

~~CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN 50~~
~~YLTKEECLKK C 61~~
~~(SEQ ID NO:5);~~

YEEYCTANA VTGPCRASFP RWYFDVERNS CNNFIYGGCR GNKNSYRSEE 150
ACMLRCFRQ 159
(SEQ ID NO:6);

~~CTANA VTGPCRASFP RWYFDVERNS CNNFIYGGCR GNKNSYRSEE 150~~
~~ACMLRC 156~~
~~(SEQ ID NO:7);~~

IHDF CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN 50
YLTKEECLKK CATVTENATG DLATSRNAAD SSVPSAPRRQ DSEDHSSDMF 100
NYEEYCTANA VTGPCRASFP RWYFDVERNS CNNFIYGGCR GNKNSYRSEE 150
ACMLRCFRQ 159
(SEQ ID NO:3);

CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN 50
YLTKEECLKK CATVTENATG DLATSRNAAD SSVPSAPRRQ DSEDHSSDMF 100
NYEEYCTANA VTGPCRASFP RWYFDVERNS CNNFIYGGCR GNKNSYRSEE 150
ACMLRC 156
(SEQ ID NO:50);and

ADRERSIHDF CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN 50
YLTKEECLKK CATVTENATG DLATSRNAAD SSVPSAPRRQ DSEDHSSDMF 100
NYEEYCTANA VTGPCRASFP RWYFDVERNS CNNFIYGGCR GNKNSYRSEE 150
ACMLRCFRQQ ENPPLPLGSK VVVLAGAVS 179
(SEQ ID NO:1)~~; and~~

~~ADRERSIHDF CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN 50~~
~~YLTKEECLKK CATVTENATG DLATSRNAAD SSVPSAPRRQ DS 92~~
~~(SEQ ID NO:8)~~.

13. (Previously presented) The nucleic acid sequence of claim 12, wherein the nucleic acid comprises a sequence selected from SEQ ID NOS: 9, 32, 44, 46, 48, 51 or 75.

14. (Previously presented) A self-replicating expression vector, comprising a nucleic acid sequence of claim 12 or 13.

15. (Previously presented) The expression vector of claim 14, wherein the expression vector expresses a protein that:

(a) is glycosylated; or

b) contains at least one intra-chain cysteine-cysteine disulfide bond; or

(c) is both glycosylated and contains at least one intra-chain cysteine-cysteine disulfide bond.

16. (Previously presented) A method of producing a protein encoded by a nucleic acid of claim 12, comprising:

(a) inserting the nucleic acid into an appropriate protein expression vector by use of a recombinant DNA technology, to create a bikunin expression vector; and

(b) subjecting the bikunin expression vector to an appropriate protein expression system.

17. (Previously presented) The method of claim 16, wherein the protein:

(a) is glycosylated;

(b) contains at least one intra-chain cysteine-cysteine disulfide bond; or

(c) is both glycosylated and contains at least one intra-chain cysteine-cysteine disulfide bond.